

## Claims Ammendments

Claim 1(Currently amended) What we claim as our invention is:  
A continuous flow psychrophilic anaerobic digester, ~~micro-~~  
~~filtration integrated aquaculture waste treatment system~~ comprised  
of:

- a. An anaerobic digester to capture waste, ~~fitted with augers to~~  
~~mix digested slurry with waste stream.~~
- ~~b. Valves to control the flow of effluent to allow sludge to settle~~  
~~before effluent is released.~~
- ~~c. Micro filter to filter solids and pathogens from effluent.~~
- ~~d. Aquatic plants for filtering of effluent.~~ Over flow canal for  
effluent to flow into.

Claim 2(withdrawn) A system according to claim 1 where valve  
for effluent is closed before receiving waste stream.

Claim 3(withdrawn) A system according to claim 1 where waste is  
mixed daily with augers.

Claim 4(withdrawn) A system according to claim 1 where waste  
is allowed to settle at least eight hours before opening valve to  
allow effluent to flow out.

Claim 5(original) A system that converts existing manure pits, i.e.  
lagoons into anaerobic digesters by covering the pit with an airtight  
diaphragm secured to a concrete beam where diaphragm is kept  
under a negative pressure.

Claim 6(original) A system according to claim 5 that protects  
against environmental contamination by removing the danger of  
the diaphragm being lifted by biogases in flood stage.

Claim 7(original) A system according to claim 5 where the  
concrete beam is plumbed to receive waste, to pump off biogas, to  
provide for effluent overflow, and to remove finished slurry.

Claim 8(currently amended) A system according to claim 5  
where biogas is pumped off into storage and an emergency  
photovoltaic pump located on vent is used during flood stage to  
keep diaphragm under vacuum.

Claim 9(currently amended) A system for effluent overflow  
~~Of aquatic plant filtering of effluent~~ the system comprised of:

- a. A canal adjacent to digester
- b. Canal is lined ~~and covered with a greenhouse~~
- ~~c. An overhead conveyor harvester~~

Claim 10(currently amended) A system according to claim 9  
where canal is lined ~~and covered~~ to prevent ground water  
contamination.

Claims 11-17 (canceled)